

**IN THE CLAIMS**

*The following listing of claims replaces all prior claim versions and listings:*

1. (Previously Amended) A vehicular traffic monitoring system for a mobile telephone network including a plurality of base stations for receiving and transmitting signals from and to a plurality of mobile telephones, the system comprising:

a position monitoring unit for deriving the position of the plurality of mobile telephones communicating via the mobile telephone network, the position monitoring unit comprising a store for storing identification and position data for the plurality of mobile telephones; and

a traffic flow analyser for determining traffic flow at positions of the plurality of mobile telephones,

wherein the store and traffic flow analyser are configured such that the traffic flow is determined predominantly from the identification and position data of a subset of the plurality of mobile telephones, the subset being mobile telephones of users that have indicated a traffic monitor request to the mobile telephone network.

2. (Original) A system according to claim 1, wherein the subset of mobile telephones is those that have transmitted a traffic monitor request to the mobile telephone network.

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3. (Original) A system according to claim 1 or 2, wherein the mobile telephones in the subset of mobile telephones are each arranged to broadcast a signal to the network more frequently than mobile telephones not in the subset.

4. (Previously Amended) A system according to claim 1, wherein the traffic flow analyser is configured to determine traffic flow by giving a greater weighting to position data of the subset of mobile telephones.

5. (Previously Amended) A system according to any of claim 1, wherein the traffic flow analyser is configured to determine a confidence rating for the route of each mobile telephone in the subset.

6. (Previously Amended) A system according to claim 5, wherein the traffic flow analyser is configured to determine traffic flow as a function of the data of the subset with a higher confidence rating.

7. (Previously Amended) A system according to claim 1, wherein the position monitor is configured to determine traffic flow as a function of the data of the subset with higher speeds.

8 - 10. (Cancelled)

11. (Previously Amended) A method for monitoring vehicular traffic in a mobile telephone network, the method comprising:

deriving a position of a plurality of mobile telephones communicating via the mobile telephone network;

storing identification and position data for each of the plurality of mobile telephones; and

determining traffic flow at positions of the plurality of mobile telephones, wherein the determining of traffic flow is determined predominantly from the identification and position data of a subset of the plurality of mobile telephones, the subset being those mobile telephones of users that have indicated a traffic monitor request to the mobile telephone network.

12. (Original) A method according to claim 11, wherein the subset of mobile telephones is those that have transmitted a traffic monitor request to the mobile telephone network.

13. (Original) A method according to claim 11 or 12, wherein the step of determining a traffic flow is achieved by giving a greater weighting to position data of the subset of mobile telephones.

14. (Previously Amended) A method according to claim 11, wherein the step of determining traffic flow comprises a function placed on a confidence rating of the route of each mobile telephone in the subset.

15. (Previously Amended) A method according to claim 11, wherein the step of determining traffic flow is a function of the data of the subset with a higher confidence rating.

16. (Previously Amended) A method according to claim 11, wherein the step of determining traffic flow is a function of the data of the subset with higher speeds.